

Naohide HIRATSUKA*: Materials for a rust-flora of
Eastern Asia (1)**

平塚直秀*: 東アジア銹菌フロラ資料 (1)

1. **Uredinopsis filicina** (Niessl) Magnus in Atti d. Congr. Bot. Genova 1892: 167 & pl. IX. figs. 1~13, (1893).

Hab. O. I. On *Abies homolepis* Sieb. et Zucc. (*Urajiro-momi*). Japan:—Honshu: Prov. Kai: Mt. Fuji (Shoji-guchi) (July 18, 1950, Hiratsuka f., S. Sato & S. Akasawa). *Abies homolepis* is a new host plant for the present species.

2. **Pucciniastrum Actinidia** Hiratsuka, f. in Mem. Tottori Agric. Coll. 4: 279 (1936). (Char. emend.)

Soris teleutosporiferis hypophyllis, subepidermalibus, flavo-brunneolis; teleutosporis intercellularibus, sphaericis usque oblongis vel cuneatis, flavidis, levibus, vario modo horizontaliter et verticaliter in cellulas 2~8 (plerumque 4) divis, 20~30 μ altis, 18~27 μ latis; episporio circa 1~1.2 μ crasso.

Hab. II, III. On *Actinidia arguta* Planch. (*Sarunashi*). Japan:—Shikoku: Prov. Tosa: None-machi (Nov. 21, 1945, F. Sakamoto).

This species was first described by the present writer in 1936 based upon a specimen of the uredostage on *Actinidia formosana* Hayata, which was collected by T. Suzuki from Formosa. The teleutospores of this fungus have remained undescribed up to the present time. The writer was able, however, to observe that stage on a specimen on *Actinidia arguta* which was collected by F. Sakamoto in Tosa Province, Shikoku. The present species is new to Japan.

3. **Pucciniastrum Tiliae** Miyabe in Hiratsuka in Bot. Mag. Tokyo, 11: 47 & pl. IV, figs. 12~20 (1897).

Hab. II, III. On *Tilia kiusiana* Mak. et Shirasawa (*Heranoki*). Japan:—Kiu-shu: Prov. Hiuga: Mt. Omori-dake (Aug. 6, 1949, K. Mori). *Tilia kiusiana* is a new host plant for this species.

4. **Pucciniastrum Yoshinagai** Hiratsuka, f. in Transact. Tottori Soc. Agric. Sci. 2: 247 & text-fig. 1 (1931).

Hab. II, III. On *Stewartia monadelphae* Sieb. et Zucc. (*Himeshara*). Japan:—Kiushu: Prov. Hiuga: Kirishima Mts. (Sept. 23, 1946, S. Hirata).

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Stewartia monadelphæ is a new host plant for this species.

5. **Phakopsora Fici-erectæ** Ito et Otani in Bot. & Zool. **9**: 663 & text-fig. 2 (1941) (nomen seminudum); Ito & Murayama in Transact. Sapporo Nat. Hist. Soc. **18**: 85 (1949).

Uredo moricola Hennings in Hedwigia, **41**: 140 (1902).

Hab. II, (III). on *Morus alba* L. (*Ma-guwa*). Formosa:—Prov. Taihoku: Taihoku (Oct. 7, 1908, K. Sawada). Prov. Taichu: Mareppa (July 3, 1936, Y. Hashioka). II, (III). On *Morus australis* Poir. (*Shima-guwa*). Formosa:—Prov. Taihoku: Mt. Oyayubi (Aug. 2, 1936, Y. Hashioka). Prov. Taichu: Gyochi (Dec. 29, 1932, Y. Hashioka). II, III. On *Morus bombycis* Koidz. (*Yamaguwa*). Japan:—Kiusshu: Prov. Hiuga: Kitago-mura (Sept. 7, 1949, S. Hirata); Mt. Osuzu (Aug. 11, 1946, S. Hirata); Mt. Aoidake (Oct. 17, 1946, S. Hirata). Prov. Osumi: Yakushima (Oct. 13, 1949, S. Katsuki).

6. **Pucciniostele Hashiokai** (Hirats. f.) Cummins in Mycologia, **42**: 790 & figs. 6 & 7 (1951).

Cerotelium Hashiokai Hiratsuka, f. in Journ. Jap. Bot. **13**: 248 (1937); Ito, Myc. Fl. Jap. **2**, no. 2: 177; Hiratsuka, f. in Mem. Tottori Agric. Coll. **7**: 15 (1943); 223 (1944).

Pucciniostele Ampelopsidis Sawada in Taiwan-Nojiho, **38**: 703 (1942) (nom. seminud.); Descript. Cat. Formosan Fung. **8**: 49 (1943) (nom. seminud.)

Hab. II, III. On *Ampelopsis cantoniensis* Planch (*Taiwan-udokazura*). Formosa:—Prov. Taihoku: Urai-sha (Nov. 4, 1928, K. Sawada, type of *Pucciniostele Ampelopsidis* Sawada!). Prov. Taichu: Gojyo (Dec. 29, 1932, Y. Hashioka, type of *Cerotelium Hashiokai* Hiratsuka, f. !); Rengechi (Nov. 3, 1932, Y. Hashioka).

7. **Coleosporium Clematidis** Barclay in Jour. Asiatic Soc., Bengal, **59**-2: 89 (1890).

Hab. O. I. On *Pinus densiflora* Sieb. et Zucc. (*Akamatsu*). Japan:—Honshu: Prov. Suruga: Mt. Fuji (Subashiri-mura) (July 16, 1951, Hiratsuka, f.). *Pinus densiflora* is a new host plant for the present fungus.

8. **Cronartium Quercuum** Miyabe in Shirai in Bot. Mag. Tokyo, **13**: 74 & pl. IV-V (1899).

Hab. II, (III). On *Shiia Sieboldi* Mak. (*Shii*). Japan:—Honshu: Prov. Sagami: Jinmuji near Zushi (April 15, 1951, Hiratsuka, f. & S. Sato). *Shiia Sieboldi* is a new host for this species.

9. **Ochropsora Ariae** (Fuck.) Sydow, Monogr. Ured. **3**: 661 (1915).

Hab. III. On *Amelanchier asiatica* Endl. (*Zaihuriboku*). Japan:—Honshu:

Prov. Inaba: Tottori (Oct. 28, 1941. Hiratsuka, f.). *Amelanchier asiatica* is a new host plant for this species.

10. **Phragmidium Rubi-parvifolii** Liou et Wang in Contrib. Inst. Bot. Nat. Acad. Peiping, 3: 435 & pl. 42, fig. 4 (1935).

Hab. II, III. On *Rubus parvifolius* L. var. *triphyllus* Nakai (*Nawashiroichigo*). N. Korea:—Prov. Kogen: Horin-men (Heisho-gun) (Nov. 7, 1940, Y. Yoshida). S. Korea:—Prov. Keiki: Keijyo (Oct. 16, 1929, Hiratsuka, f.). New to Korea.

11. **Pileolaria Pistaciae** Tai et Wei in Sinensia, 4: 108 & fig. 39 (1933).

Hab. II, III. On *Pistacia chinensis* Bunge (*Ranshinboku*). Japan:—Kiushu: Prov. Osumi: Anbo (Yakushima) (Aug. 6, 1951, K. Togashi & S. Katsuki). This species is new to Japan.

12. **Uromyces Cacaliae** Unger, Einfl. Bod. Vert. Gew. 216 (1836).

Hab. III. On *Cacalia adenostyloides* Franch. et Sav. (*Kani-komori*). Japan:—Honshu: Prov. Kai: Mt. Fuji (Shoji-guchi) (July 18, 1950, Hiratsuka, f., S. Sato & S. Akasawa). *Cacalia adenostyloides* is a new host plant for the present fungus.

13. **Uromyces yakushimensis** Hiratsuka, f. et Katsuki, sp. nov.

Soris teleutosporiferis amphigenis, plerumque epiphyllis, sparsis vel laxe aggregatis, minutis, pulverulentis, atro-brunneis vel atris; uredosporis immixtis (paucis tantum visis), ellipsoideis, obovatis vel subglobosis, subtiliter echinulatis, flavo-brunneis, $30\sim36\times24\sim30\mu$; episporio $1\sim1.5\mu$ crasso; teleutosporis subglobosis, ovatis vel piriformibus, apice papilla subhyalina usque 7μ alta instructis, levibus, castaneobrunneis, $36\sim51\times27\sim33\mu$; episporio crassiusculo; pedicello hyalino, persistenti, brevi.

Hab. II, III. On *Trichosanthes multiloba* Miq. (*Momiji-karasuuri*). Japan:—Kiushu: Prov. Osumi: Yakushima (Oct. 13, 1949, S. Katsuki, type!).

The present fungus distinctly differs from the following two species of this genus on species belonging to the Cucurbitaceae, *Uromyces Hellerrianus* Arthur and *U. novissimus* Spegazzini, by much larger teleutospores.

14. **Puccinia Crepidis-integrae** Hiratsuka f., nom. nov.

Uredo Crepidis-integrae Lindroth in Acta Soc. pro Fauna et Flora Fennica, 22—3: 11 (1902), (Ito, Myc. Fl. Jap. 2—3, 358). *Puccinia lactucicola* (non Miura) Katsuki & Maki in Transact. Nat. Hist. Soc. Fukuoka, 2: 149 (1938).

Status uredosporiferi = *Uredo Crepidis-integrae* Lindroth.

Soris teleutosporiferis hypophyllis, sparsis vel laxe aggregatis, subpulverulentis, atro-brunneis; teleutosporis forma variabilibus, plerumque ellipsoideis vel oblongis, apice plerumque rotundatis, non vel lenissime incrassatis, medio non

vel vix constrictis, basi rotundatis, $30\sim42\times18\sim30$; episporio verrucoso, castaneo-brunneo, $2\sim2.5\mu$ crasso, ad poros germinationis non vel leniter (usque 5μ) incrassato, poro cellulae superioris plerumque apicali, poro cellulae inferioris plerumque inter medium cellulae et septum posito; pedicello hyalino, brevi.

Hab. II, III. On *Crepidiastrum lanceolatum* Nakai (*Crepis integra* Miq.) (*Heranaren*, *Hosoba-wadan*). Japan:—Kiushu: Prov. Chikuzen: Fukuoka-shi (Nov. 3, 1934, Y. Maki); Shiganoshima near Fukuoka-shi (Oct. 31, 1937, Y. Maki). Prov. Higo: Tomioka-machi (Amakusa) (Dec. 21, 1939, Hiratsuka, f. *type*!). Prov. Hizen: Nagasaki-shi (C. Maximowicz, *type* of *Uredo Crepidis-integrae* Lindroth!). Prov. Osumi: Sanbo-mura (Amami-oshima) (Oct. 19, 1936, T. Tamotsu). Prov. Satsuma: Shimokoshiki-jima (April 2, 1933, K. Ide). Loochoo Isls.:—Okinawa Isl.: Chinen-mura (Shimajiri-gun) (Jan. 20, 1940, Hiratsuka, f.); Takamine-mura (Shimajiri-gun) (March 19, 1940, Y. Taira); Yontanzen-mura (Nakagami-gun) (March 8, 1940, Y. Taira).

II, III. On *Crepidiastrum Keiskeana* Nakai (*Aze-iona*). Japan:—Honshu: Prov. Kii: Wakayama-shi (Nov. 5, 1938, E. Tobinaga).

The present species closely resembles *Puccinia Lactucae-debilis* Dietel, from which it is easily distinguished by the number of germ-pores and wall thickness in the uredospores.

15. ***Puccinia Sonchi-arvensis*** Tokunaga et Kawai in Kawai & Otani in Transact. Sapporo Nat. Hist. Soc. **11**: 235 & fig. 2 (1931).

Hab. III. On *Sonchus uliginosus* Bieb. (*S. arvensis* L. var. *uliginosus* Trautv.) (*Hachijyona*). Japan:—Hokkaido: Prov. Tokachi: Makubetsu (Sept. 21, 1926, Naoharu Hiratsuka). This species is new to Japan.

16. ***Puccinia Benkei*** Kusano in Bot. Mag. Tokyo, **18**: 147 & fig. (1904).

Hab. III. On *Sedum kamtschaticum* Fisch. et Mey. (*Kirinso*). Japan:—Honshu: Prov. Kai: Mt. Fuji (Shoji-guchi) (July 9, 1950, Hiratsuka, f., S. Sato & S. Akasawa). *Sedum kamtschaticum* is a new host plant for this species.

17. ***Puccinia Chrysanthemi*** Roze in Bull. Soc. Myc. France, **17**: 92 (1900).

Hab. II, III. On *Chrysanthemum Makinoi* Matsum. et Nakai (*Ryunogiku*). Japan:—Honshu: Prov. Kai: Mt. Fuji (Lake-side of Shoji-ko) (Aug. 23, 1950, S. Sato & S. Akasawa). *Chrysanthemum Makinoi* is a new host plant for the present species.

18. ***Puccinia artemisiicola*** Sydow, Monogr. Ured. **1**: 14 & pl. I, fig. 11 (1902).

Hab. III. On *Artemisia littoralis* Kitamura (*Hama-otokoyomogi*). S. Sagha-

lien:—Noboripo (July 19, 1927, Hiratsuka, f.) *Artemisia littoricola* is a new host plant for this species.

19. **Puccinia Heucherae** (Schw.) Dietel in Ber. Deuts. Bot. Ges. **9**: 42 (1891).

Hab. III. on *Mitella nuda* L. (*Maruba-charumeruso*). Japan:—Hokkaido: Prov. Kitami: Okedo-mura (Oct. 10, 1931, Hiratsuka, f.). This species is new to the mycological flora of Japan.

20. **Puccinia Veronicae** Schröter in Pilze Schles. 347 (1889).

Hab. III. On *Veronica japonensis* Mak. (*Tsuru-kuwagataso*). Japan:—Honshu: Prov. Shimotsuke: Konsei-toge (Oku-Nikko) (July 24, 1936, Hiratsuka, f.). The present species is a new addition to the mycological flora of Japan, and *Veronica japonensis* is a new host plant for it.

21. **Puccinia ishizuchiensis** Hiratsuka f., nov. spec.

Soris teleutosporiferis hypophyllis, maculis rotundatis rufo-brunneis saepe depressis insidentibus, mediocribus vel majusculis, rotundatis vel ellipsoideis, 0.8 ~ 4 mm diam., sparsis, epidermide nitida lacerata cinctis vel semivelatis, compactiusculis, atris; teleutosporis clavatis vel oblongo-clavatis, apice valde incrassatis (usque 16 μ), rotundatis vel conico-angustatis, medio non vel vix constrictis, basi attenuatis, levibus, brunneis, 57 ~ 75 \times 12 ~ 18 μ ; pedicello subhyalino vel pallide brunneolo, persistenti, usque 38 μ longo.

Hab. III. On *Galium japonicum* Makino et Nakai (*Kinutaso*). Japan:—Shikoku: Prov. Iyo: Mt. Ishizuchi (July 31, 1951, S. Mori, type!).

The present species is a microcyclic species. It is closely related to *Puccinia rubefaciens* Johans., but, it distinctly differs from the latter by the more longer teleutospores.

22. **Puccinia Asteris** Duby in Bot. Gall. **2**: 888 (1830).

Hab. III. On *Aster dimorphophyllus* Franch. et Sav. (*Tateyama-giku*). Japan:—Shikoku: Prov. Iyo: Sasagamine (Aug. 1, 1951, S. Mori). This species is new to Japan, and *Aster dimorphophyllus* is a new host plant for it.

23. **Puccinia uralensis** Tranzschel in Script. Bot. Hort. Univ. Imp. Petro-pol. **3**: 138 (1891)

P. Cacaliae Kusano in Bot. Mag. Tokyo, **18**: 147 & fig. (1904), (Syn. nov.)

Hab. III. On *Cacalia Yatabei* Matsum. et Koidz. (*Yama-daimingasa*). Japan:—Honshu: Prov. Kai: Mt. Fuji (Shoji-guchi) (July 18, 1950, Hiratsuka, f., S. Sato & S. Akasawa). *Cacalia Yatabei* is a new host plant for this species.

24. **Puccinia polliniicola** Sydow in Ann. Myc. **29**: 156 (1931).

Hab. II, III. On *Microstegium vimineum* A. Camus var. *imberbe* Honda (*Ashi-*

boso). Japan:—Kiushu: Prov. Osumi: Miyanoura (Yakushima) (Oct. 13, 1949, S. Katsuki); Formosa:—Prov. Taihoku: Shikikun (July 26, 1934, Y. Hashioka); Rumoan (July 30, 1934, Y. Hashioka).

The present species is new to Japan and Formosa.

25. **Puccinia Polygoni-amphibii** Persoon, Syn. Meth. Fung. 227 (1801).

Hab. II, (III). On *Fagopyrum vulgare* Hill var. *autumnale* Nemoto (*F. esculentum* var. *autumnale* Mak.) (*Soba*) (cult.). Japan:—Kiushu: Prov. Hiuga: Miyazaki-shi (Oct. 23, 1936, S. Hirata). *Fagopyrum vulgare* var. *autumnale* is a new host plant for this fungus.

26. **Uredo Laporteeae** Hiratsuka f., nov. spec.

Soris hypophyllis, laxe aggregatis vel sparsis, rotundatis vel ellipsoideis, minutissimis, 0.08~0.2 mm diam., mox nudis, pallide brunneis; paraphysibus numerosis, capitatis vel clavato-capitatis, saepe curvatis vel irregularibus, dilute flavo-brunneis, 32~60 μ longis ad apicem 12~25 μ latis et membrana incrassata (3~5 μ) praeditis cinctis; sporis subglobosis, ovatis vel ellipsoideis, densiuscule echinulatis, pallide flavo-brunneolis, 24~33 \times 15~25 μ ; episporio 1~1.5 μ crasso.

Hab. II. On *Laportea bulbifera* Wedd. (*Mukago-irakusa*). Japan:—Honshu: Prov. Echizen: Eiheiiji (Sept. 24, 1939, Hiratsuka, f. & E. Tobinaga, *type!*), Prov. Inaba: Mt. Hyonosen (Aug. 29, 1930, Hiratsuka, f.).

This fungus seems to be a species of *Phakopsora*, but it is proposed to classify it provisionally under the above name until its teleutospores are found.

○東亞植物圖説の最新號 Latest issue of Dr. Nakai's Iconographia Pl. Asiae Orient. by Shunyōdo Shoten, Tokyo.

Vol. 5 No. 2 (March, 1952) が出た。第148~155 圖版でヒトヨシテンナンショウ、シホカゼザクラ、オホアヲカモメヅル、ウナツギギボウシ、オホクルマバツクバネ等を圖解。近頃の代表的な植物畫家、加納川、安達、二口、太田の諸氏が筆を競っている。英國の畫家 Blunt 氏が The Art of Botanical Illustration (1950) という植物の畫の變遷史を書いた中に、近代の日本での植物畫の代表として本書を擧げていることゝ思い合せると興味がある。東京春陽堂の發行、定價 250 円 (前川文夫)